

CLAIMS

What is claimed is:

1. A method for facilitating collaboration on a project using an Application Service Provider, comprising the steps of:

setting up projects containing data fields wherein each data field is assigned a unique identifier for recognizing data fields between databases that contain similar data but have different designations;

10 publishing the data fields with their unique identifiers to a central database;

inviting collaborators to participate in projects, wherein collaborators can access the central database using the Internet to retrieve project data and associated unique identifiers if data fields in received information are unknown locally;

15 locally mapping retrieved or received data fields and associated unique identifiers;

electronically exchanging information relating to projects between participants; and

20 preserving individual ownership of project information.

2. The method of claim 1, wherein the project is in the construction industry.

3. The method of claim 1, further comprising the step of:
25 creating document histories by inserting new records into data fields within the document or message reflecting changes made to messages or documents as the message or documents are exchanged.

4. The method of claim 1, further comprising the step of:
30 generating reports on projects for a collaborator on an enterprise level or project specific level.

5. The method of claim 1, wherein the step of setting up a project further comprises the steps of:

5 electronically transmitting project data fields to a database, wherein a unique identifier is assigned to each data field;

10 returning the unique identifiers to a local computer;

locally mapping the unique identifiers;

choosing participants;

addressing invitations to collaborate;

15 electronically transmitting the invitations to collaborate to chosen participants.

6. The method of claim 1, wherein the step of electronically transmitting invitations further comprises the steps of:

15 converting the invitation into a transmittal format;

placing the invitation in an electronic envelope;

addressing the invitation;

creating a document history record; and

20 electronically sending the invitation.

7. The method of claim 6, wherein the transmittal format is XML.

8. The method of claim 1, wherein the step of electronically exchanging information further comprises the steps of:

25 selecting a document to exchange;

determining whether all data fields in the document each have a unique identifier, and if some data fields do not have unique identifiers, then electronically transmitting those data fields to a central database, wherein unique identifiers are assigned to the data fields; and

30 electronically transmitting the document.

9. The method of claim 6, wherein the step of electronically transmitting the document further comprises the steps of:

5 converting the document into a transmittal format;
 placing the document in an electronic envelope;
 addressing the document;
 creating a document history record; and
 electronically sending the document.

10. The method of claim 9, wherein the transmittal format is XML.

10 11. The method of claim 6, wherein the step of electronically exchanging information further comprises the steps of:

15 receiving a message;
 placing the message in addressee's queue to be accepted;
 determining whether to accept the message, and if the message is not accepted, then returning the message to sender, but if the message is accepted, then
 determining whether all data fields of the message have unique identifiers locally, and if all data fields do not have local global unique identifiers, then mapping all data, but if all data fields do have local unique identifiers, then
20 marking data as read;
 marking document as useable;
 determining whether a return receipt was requested, and if a return receipt was requested, then notifying sender, but if a return receipt was not requested, then ending.

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12. The method of claim 1 or 5, wherein the step of mapping further comprises the steps of:

performing a data comparison;

5 determining whether a match exists between received data and local data, and if a match exists displaying the matches to a user, but if a match does not exist, then importing data and unique identifier values from a database;

determining whether a match is selected, and if a match is selected, mapping the database unique identifier locally, but if no match is selected, then importing the data value and associated unique identifier.

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13. The method of claim 11, wherein the step of receiving a message further comprises the steps of:

using a computer to receive messages;

15 determining whether a received message is from an allowed sender, and if the message is not from an allowed sender, then rejecting the message and notifying the sender, but if the message is from an allowed sender, then

determining whether addressee is known locally, and if addressee is not known locally, then saving the message locally and notifying an administrator, but if addressee is known locally then,

20 determining whether the addressee has sufficient permissions for the message, and if the addressee does have sufficient permissions for the document, then

saving the document; and

marking the document as a new message;

25 but if the addressee does not have sufficient permissions for the message then rejecting the message and notifying sender.

14. The method of claim 13 wherein the step of notifying the administrator further comprises the steps of:

determining whether the administer can map addressee to a local user, and if the administer cannot map addressee to a local user, then

5 rejecting message;

notifying sender of rejection; and

removing local copy of message.

15. The method of claim 1, wherein the step of electronically tracking changes further comprises the steps of:

10 setting status of and edited or acted upon document to historical;

adding a new record to a document table indicating the edit or action;

and

15 adding a record to a document history table if the document is a compound document.

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16. A method of exchanging information in the construction industry using an Application Service Provider, comprising the steps of:

creating in a local computing area an electronic document having data fields containing information to be shared;

5 electronically transmitting the document to a central database, wherein a unique global identifier is assigned to each data field;

returning the unique identifiers to the local computing area wherein the unique identifiers are locally associated with their corresponding data fields;

addressing the document by retrieving routing information associated
10 with a unique identifier of an addressee from the central database ;

inserting the routing information into the document;

electronically sending the document;

receiving the document at a server;

15 responding to the document by sending a message having data fields associated with unique identifiers stored in a central database accessible by addressees.

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17. A computer system for exchanging messages and documents in the construction industry, comprising:

- a processing unit;
- a memory storage device;
- 5 a display device coupled to the processing unit for displaying data;
- a program module providing access to a distributed computer network,

operable for

exchanging information contained in data fields wherein each data field is associated with a unique identifier;

10 routing information to addressees wherein the routing information associated with an addressee's unique identifier is retrieved from a central database; and

tracking modifications in exchanged messages by inserting new records into document tables.

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